FIG. 2 (Amended)

FIG. 10 (Amended)

FIG. 17 (Amended)

DIGITAL TRANSMITTER 51

MODULATOR 54

INPUT 52

MODULATOR INPUT 121

1st TWO-PHASE SHIFTER MOD CIRCUIT 122

Cos2 π fct

CARRIER GENERATOR 64

π/2 PHASE SHIFTER 66

-Sin2 π fct

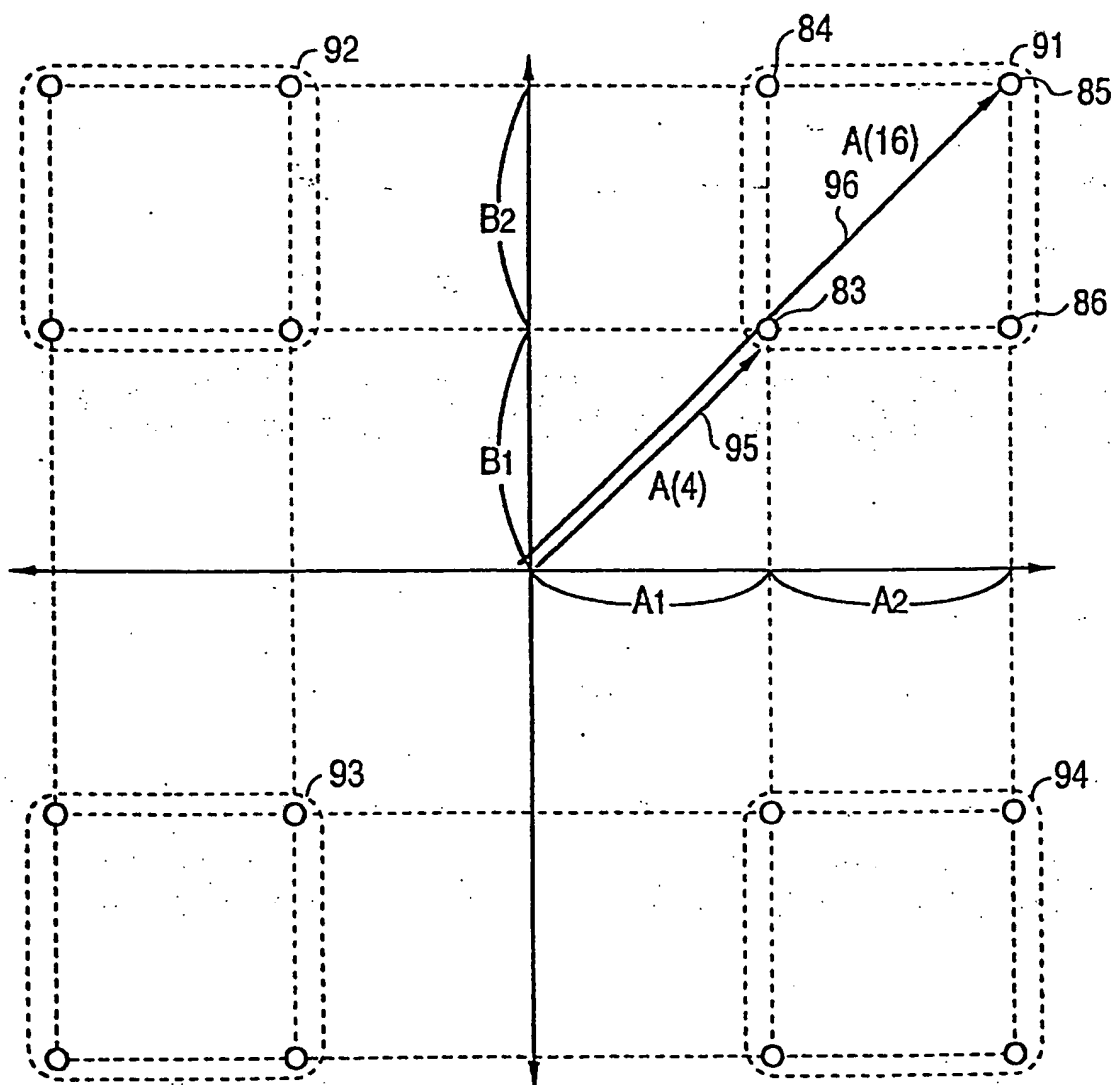2nd TWO-PHASE SHIFTER MOD CIRCUIT 123
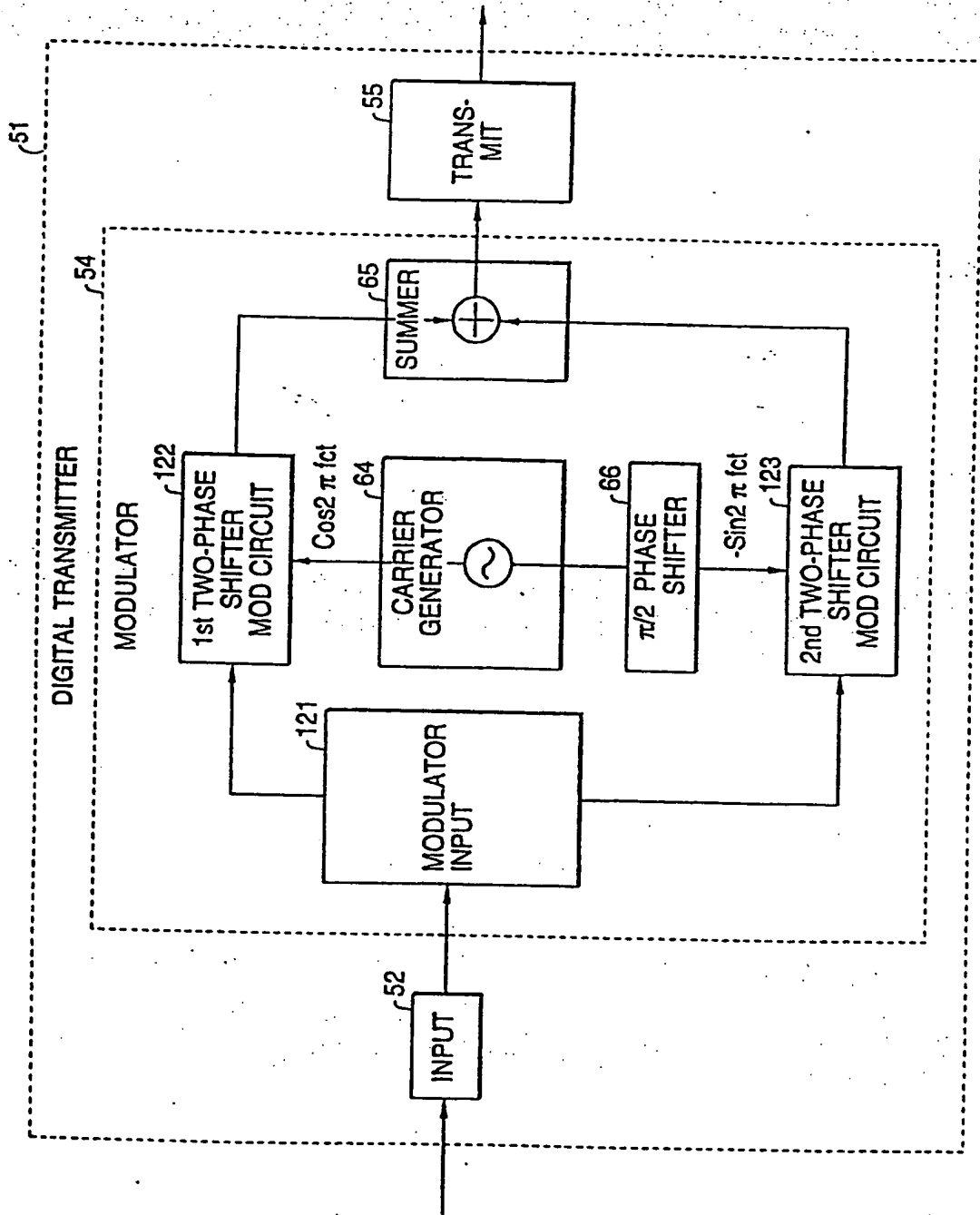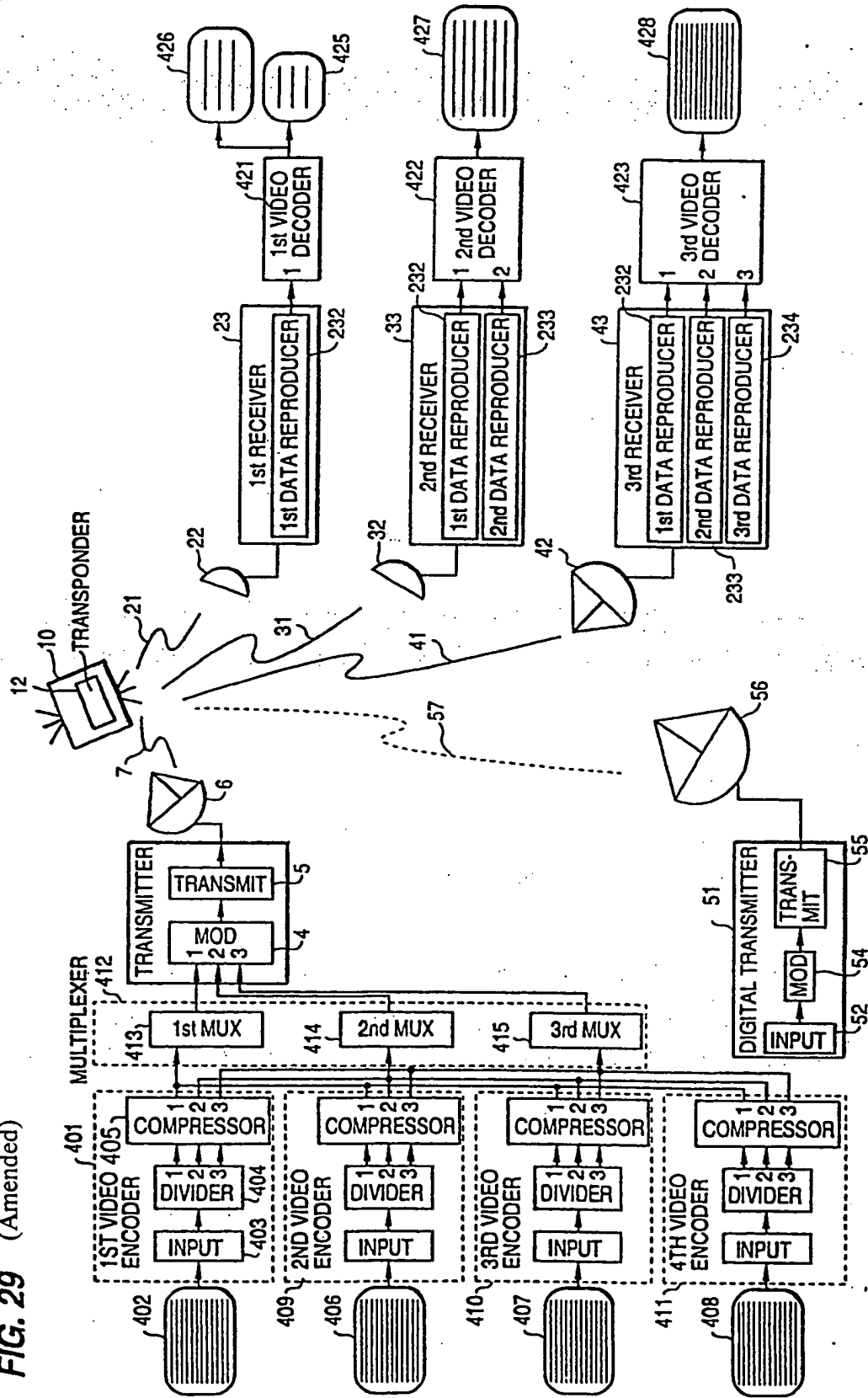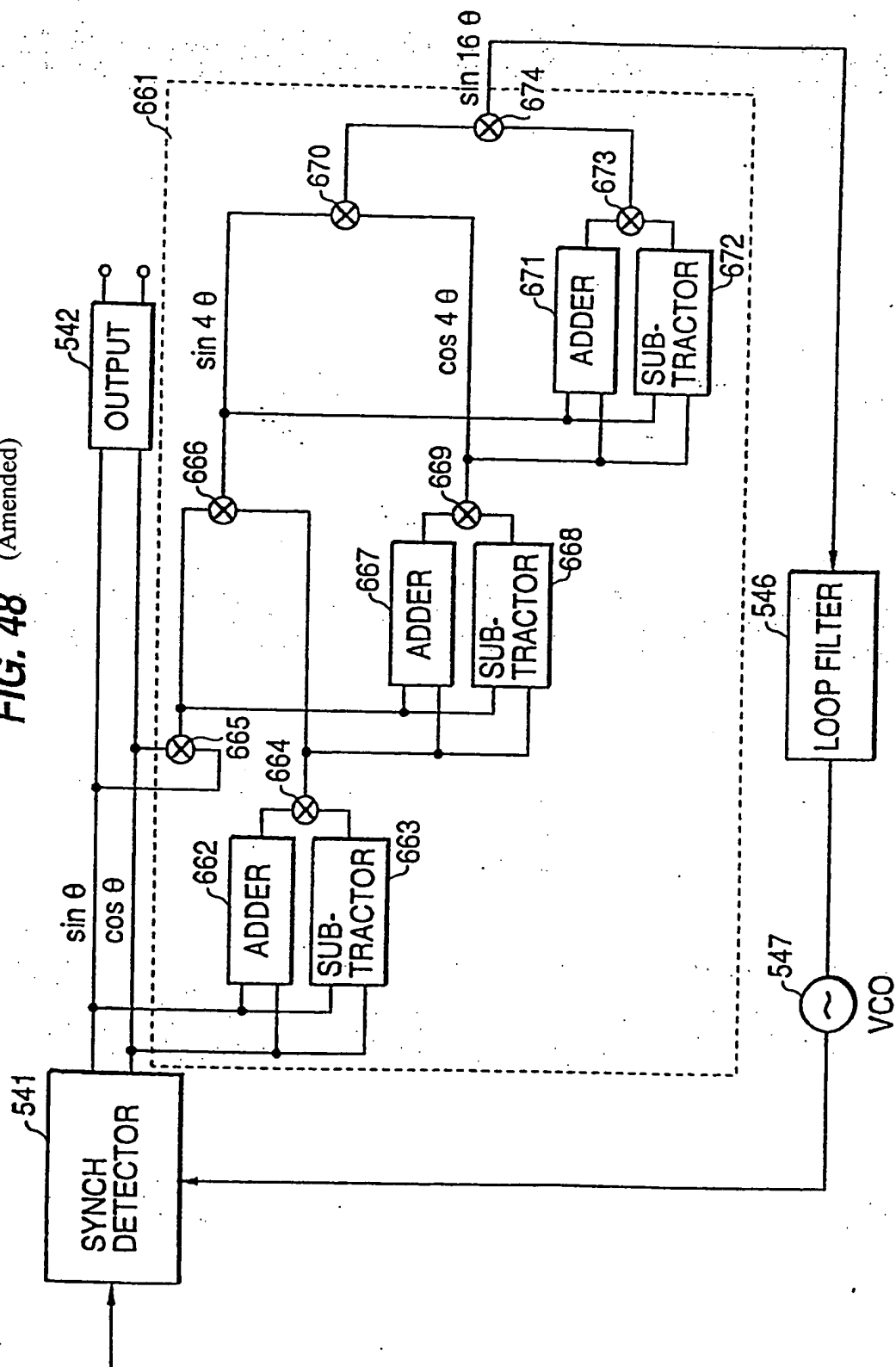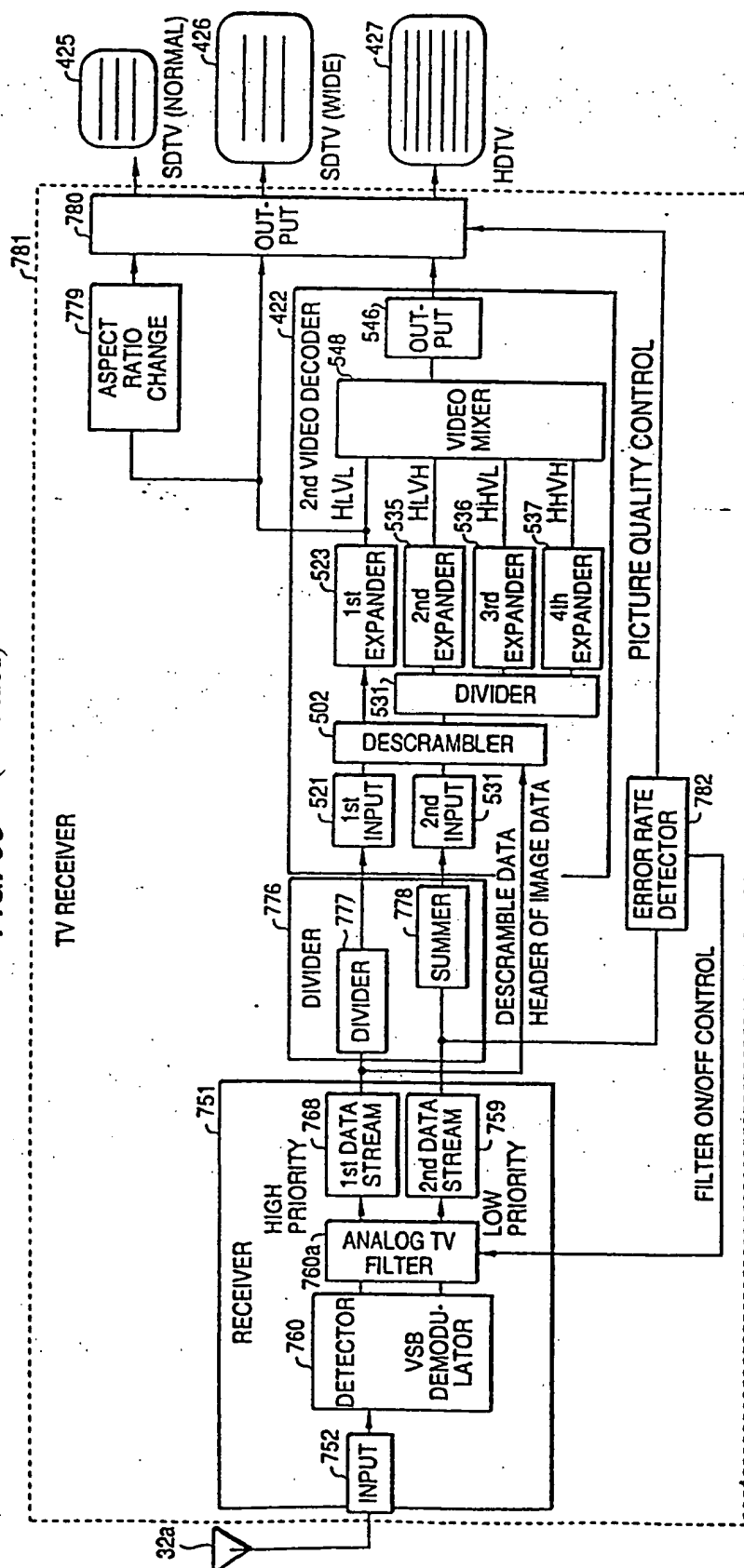
SUMMER 65

TRANS-MIT 55

FIG. 29 (Amended)
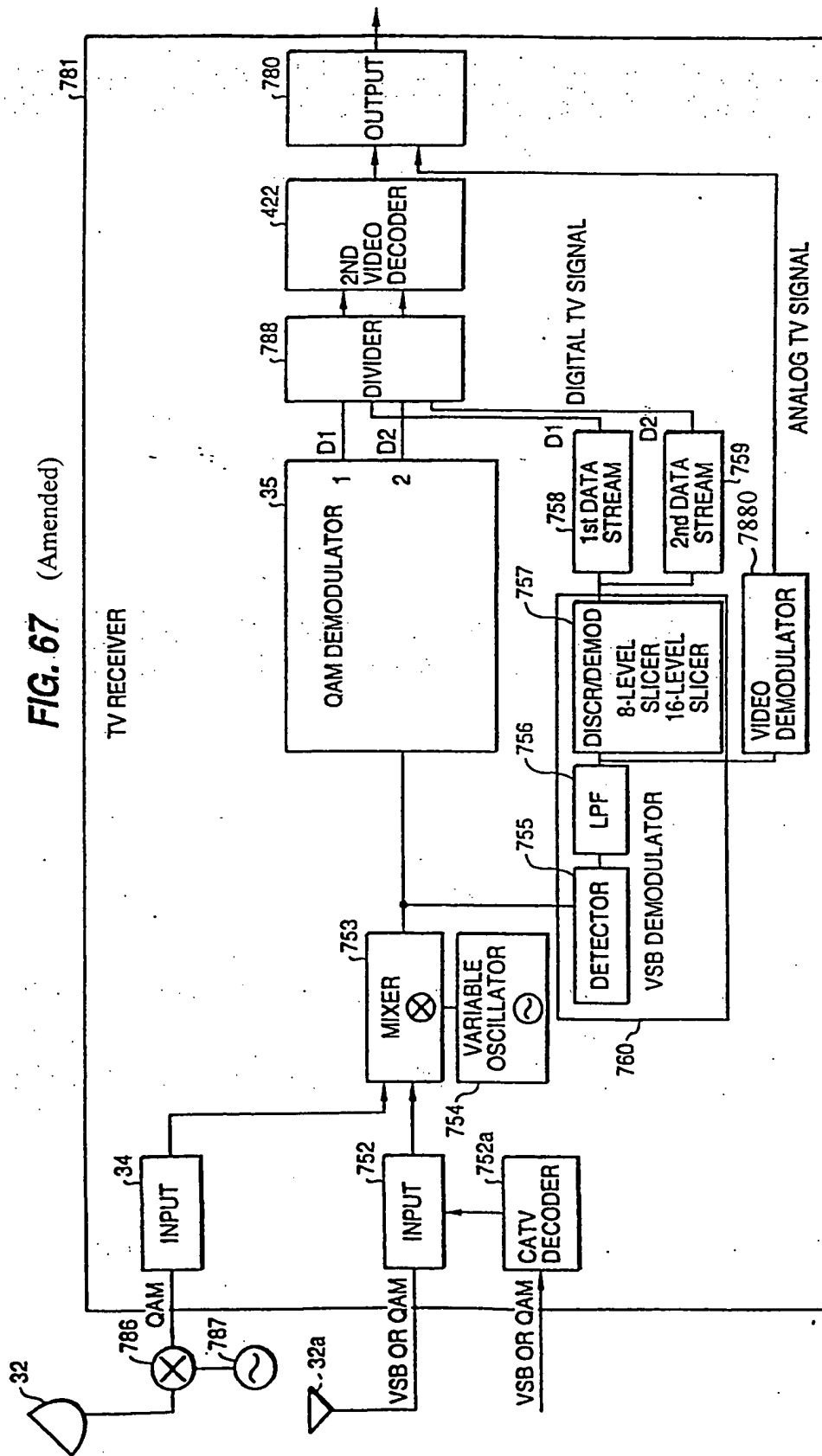
FIG. 48 (Amended)

FIG. 65 (Amended)

FIG. 67 (Amended)

TV RECEIVER

QAM DEMODULATOR 35

DIVIDER 788

2ND VIDEO DECODER 422

OUTPUT 780

781

MIXER 753

VARIABLE OSCILLATOR 754

DETECTOR 755

LPF 756

DISCR/DEMOD 757
8-LEVEL SLICER
16-LEVEL SLICER

VSB DEMODULATOR 760

1st DATA STREAM 758

2nd DATA STREAM 759

VIDEO DEMODULATOR 7880

DIGITAL TV SIGNAL

ANALOG TV SIGNAL

INPUT 34

INPUT 752

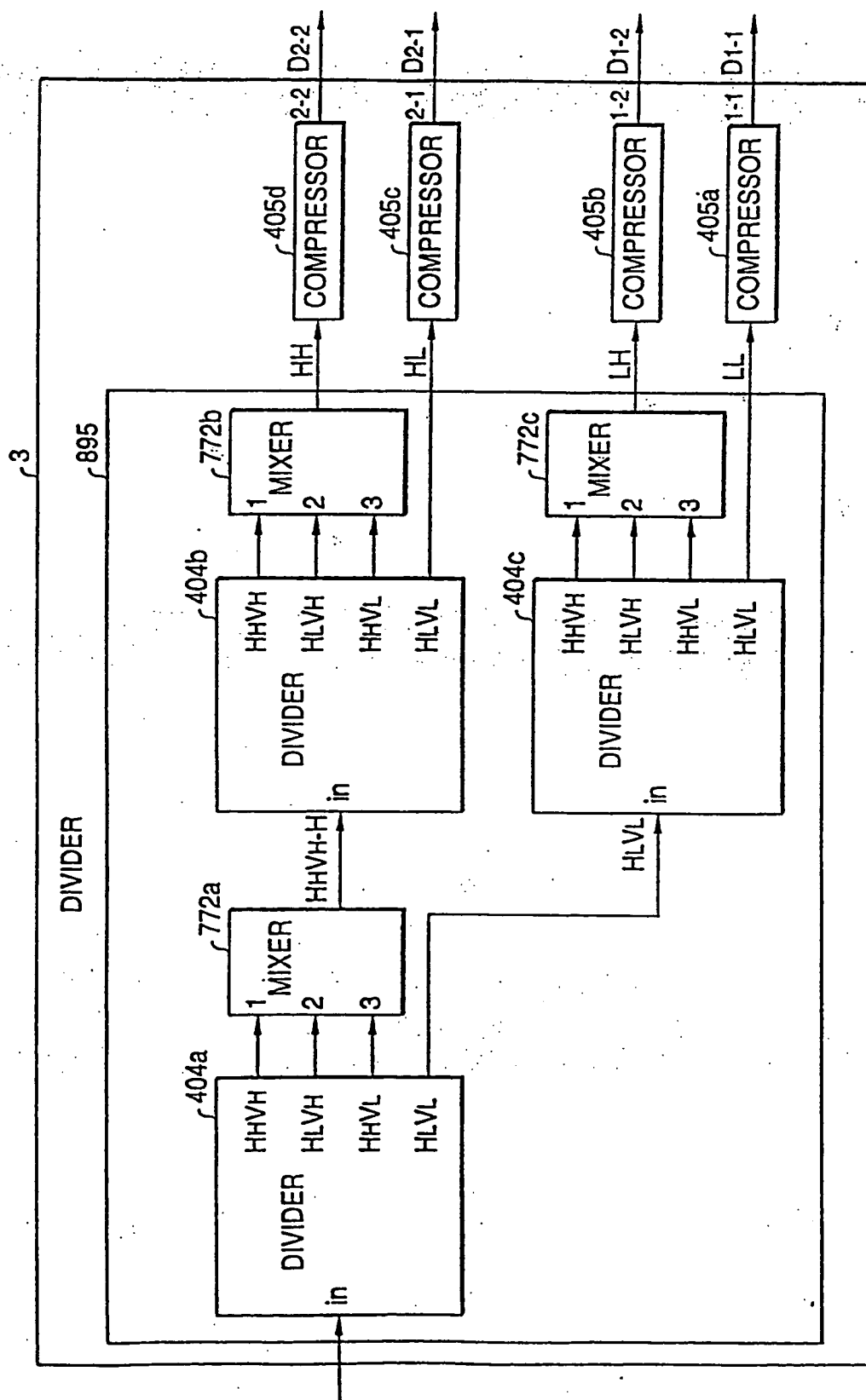CATV DECODER 752a

QAM 786
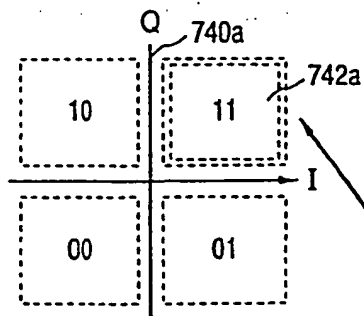
787

32

32a

VSB OR QAM

VSB OR QAM

FIG. 93 (Amended)

FIG. 112 (Amended)

SUBCHANNEL-1 (SRQAM:D1 = 2bit)

SUBCHANNEL-2 (16-SRQAM:D2 = 2bit)

CODE WORD-1

CODE WORD-2

741a ~ 11 | 2bit
741b ~ 11 | 2bit
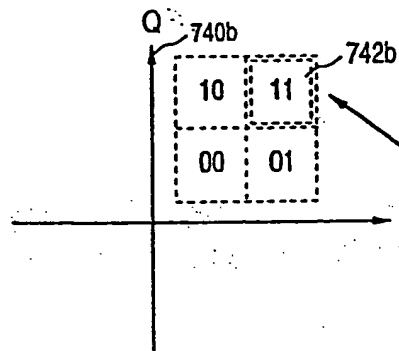
SUBCHANNEL-3 (64-SRQAM:D3 = 2bit)

741c ~ 11 | 2bit

CODE WORD-3

8bit
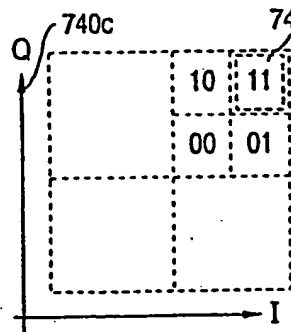
SUBCHANNEL-4 (256-SRQAM:D4 = 2bit)

741d ~ 11 | 2bit
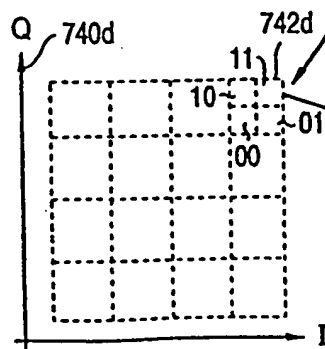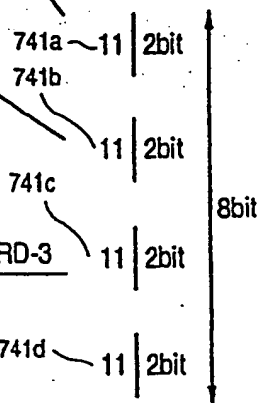
CODE WORD-4

SIGNAL POINT
CODE WORD
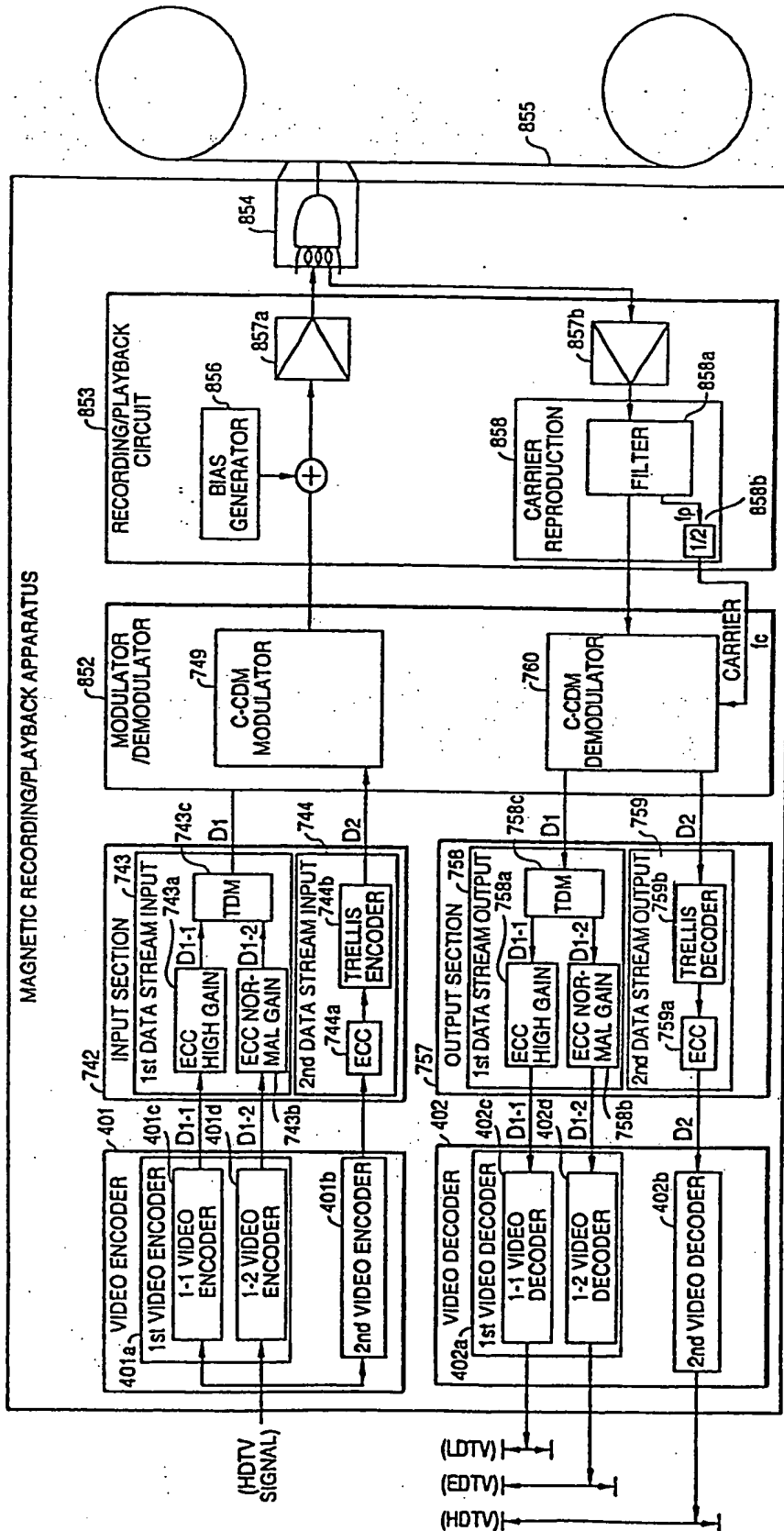11 11 11 11

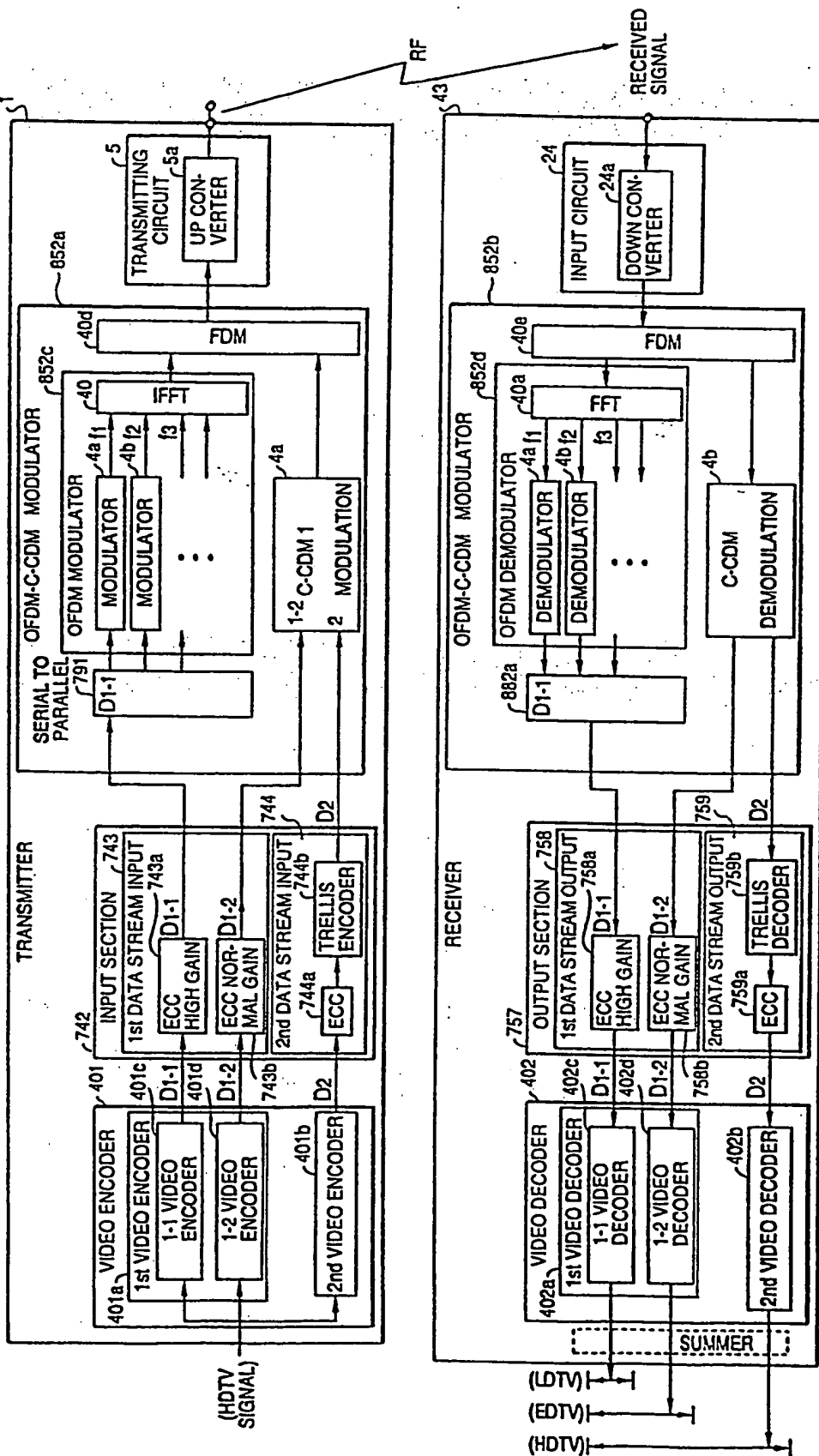*FIG. 131* (Amended)

MAGNETIC RECORDING/PLAYBACK APPARATUS

FIG. 138 (Amended)

FIG. 144 (Amended)

FIG. 169 (Amended)

COMPARISON OF REDUNDANCY

DATA RATE REQUIREMENT FOR COMPRESSED DIGITAL HDTV BROADCASTING

REDUNDANCY: R16=100%

REDUNDANCY: R8 =50%

REDUNDANCY: R4 = 10%

16 - VSB

8 - VSB

4 - VSB

TRANSFER RATE [Mbps]

40

30

20

10

0